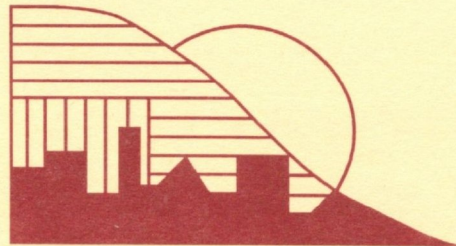


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Schools

INDIANA COLLECTION



*Heartland Center
Reports*

*Education
in
Northwest Indiana*

Spring 2001

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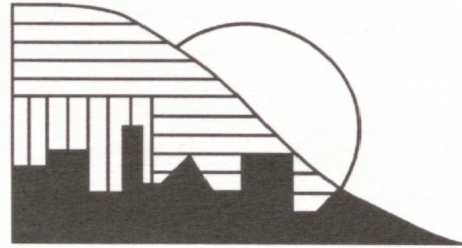
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Education in Northwest Indiana

Executive Summary

It has been nearly six years since Heartland Center reported on the education system in Northwest Indiana (*Calumet Region Schools*, Summer 1995). Despite the passage of time, the topic has continued to be on the forefront of public issues, as evidenced by the Hudson Institute report *On Shaky Ground*, and the furor caused by its release. Their scathing review of public education in Indiana, particularly focusing on educational outcomes measured by standardized tests, placed much of the blame on the school systems for failing to prepare students properly. The responses from the Indiana Association of Public School Superintendents and Dr. Gerald Bracey seriously question the methodology of the Hudson Institute, as well as the use of standardized tests to rank schools, school corporations, and states.

The current study serves two purposes. First, it replicates to a limited extent the earlier *Calumet Region Schools* report by utilizing an Index of Excellence to determine the relative strength of the school corporations in Lake and Porter counties (those included in the original report), and it gauges levels of improvement during the six years that have elapsed. Second, the present report also further analyzes data from school corporations in all three counties of Northwest Indiana (Lake, Porter and LaPorte) to ascertain what factors may lead to differences in educational outcomes among the various corporations in the region.

Key findings

- ▶ There has been little change in the 23 corporations included in the original Heartland Center report. Index scores show minimal gains and declines, with the gap between the low and high scores nearly the same as six years ago. Schools faring well in 1995 are doing well today, while those faring poorly in 1995 continue to do so today. While it is possible for index scores to converge, they have not done so.
- ▶ Of the four school corporation factors (per student expense, corporate enrollment, average teacher age, and average teacher salary), only average teacher age shows an even moderate effect in explaining the gap in index scores. The results suggest that as average teacher age increases, index scores decline. This is interpreted as indicating potential “teacher burnout,” leading to a loss of effectiveness over time. That the other three factors are relatively weak suggests that overall spending, teacher salaries, and enrollment levels have little influence on index scores.
- ▶ All four socioeconomic factors (per capita income, percent family poverty, percent students eligible for free lunch programs, and percent single parent families) are strong predictors of differences in index scores. As per capita income increases, so do index scores. Conversely, as family poverty levels or percent eligible for free lunch programs increase, index scores decline. Index scores are lower in those school corporations that

have greater percentages of single parent families. Of these factors, the strongest appears to be eligibility for school lunch programs, probably because it is the most direct measure of the economic well-being of the students in each corporation. Those in poverty may have to overcome a sense of fatalism about their life situation, leading to a lack of motivation to get the education needed. Those from single parent families not only are more likely to be effected by poverty, but may also lack parental supervision in their studies.

- The two community factors (percent of adults with less than a high school education and percent of minority students) are also strong. Index scores are lower in corporations with higher levels of adults who have not completed high school, as well as those with higher levels of minority students. The former suggests that students in those corporations with low index scores may suffer from a lack of strong role models, persons who can demonstrate the importance of education. The latter finding is probably indicative of the higher rates of poverty, single parent families, and lower levels of educated adults in those corporations with higher percentages of minorities. The idea that it might reveal an innate inability of minorities to succeed scholastically is totally rejected.

Conclusions

While the public school system is not without fault, it should not be made a “scapegoat” for any problems that exist. There are a variety of factors outside the direct control of school corporations which have a powerful influence on student outcomes. In order for major improvements to occur in the education of young people in the region, there must be a concerted effort on the part of all interested parties (families, schools, communities, businesses, state and federal governments) before real change is possible. To suggest that the problem lies solely with school corporations does a disservice to them and to their students.✂

Introduction

Six years have elapsed since Heartland Center last addressed the issue of public education in the region (*Calumet Region Schools*, Summer 1995), and a great deal has been written about how to improve the education system. But has there been any measurable improvement in educational outcomes? A large and contentious debate has resulted from the Hudson Institute report *On Shaky Ground*. That report suggests that the public education system in Indiana is failing its' students.

According to the Hudson Institute report, "extensive testing data from federal, state, and private sources indicate that Indiana students in every demographic category underperform their peers in most other states." They use a variety of data sources to support their point, citing statistics on Indiana Statewide Testing for Educational Progress (ISTEP+) scores, Scholastic Aptitude Test (SAT) and American College Testing (ACT) scores, National Assessment of Educational Progress (NAEP) scores, as well as information on school expenditures, teacher salaries, pupil-teacher ratios, and poverty rates. Their conclusions provide a gloomy assessment of public education in Indiana.

Among the statistics cited on SAT scores is that "Indiana ranked 45th among all states and the District of Columbia, with an average score of 994 out of a possible 1600." They note that the percentage of students who fail one or both parts (Math and Language Arts) of the ISTEP+ exams increases with grade-level, which they interpret to mean that the longer students stay in the educational system, the worse off they are in attaining basic skills. These negative outcomes persist despite increased funding of public education (based on spending per student), increased teacher salaries, and declines in pupil-teacher ratio. If one accepts these statistics as given, the Indiana public education system is

indeed "on shaky ground."

The response to the Hudson Institute report has been contentious. Chief among the critics is the Indiana Association of Public School Superintendents (IAPSS), who responded by commissioning a review of the report by Dr. Gerald Bracey, a national expert in educational testing and statistics. Bracey's (2000) report seriously questions the methods and use of statistics employed in the Hudson Institute report. The Hudson Institute, he states, "has slandered and mugged the schools of Indiana . . . One would call the Hudson report, *On Shaky Ground*, a hatchet job, but the instrument is too blunt."

In what ways does Bracey feel the Hudson report is flawed? He argues that their use of ranks rather than scores or percentages is inappropriate. He notes that if one considers ranks, someone must be worst. "When they run the 100-meter dash in the Olympics, someone must rank last. He is still the 8th fastest human being on the planet that day . . . It is possible that all eight runners set a new world record . . . From ranks, you cannot tell." The IAPSS response to the Hudson report picks up on this problem, noting that NAEP results at the 4th grade had Indiana students ranked 5th in math. "If they had averaged 233 rather than 229, they would have been first. If they had averaged 223, they would have been 28th."

In addition, Bracey attacks the Hudson reports' focus on SAT scores. As noted above, Indiana ranked 45th in average SAT scores. However, Indiana has a much higher percentage of students taking the SAT in comparison to other states ranked above them. In 1999, 60% of Indiana students took the exam; of the 16 states that scored highest on the exam (over 1100 average), Tennessee has the highest percentage with 13% taking the exam.

Even the Hudson report notes that there is a strong relationship between percentage of students taking the exam and average scores, with

increased percentages leading to decreased scores. This is in large part due to the fact that the students from the low-percentage states who take the exam are the “elite” of the state. But the Hudson report dismisses this relationship, arguing that based on their analysis Indiana should score higher than it does, even when one considers percentage of students taking the exam. Their predicted SAT score for Indiana is 1011, a difference of 17 points from the actual score of 994. Bracey notes that “a shortfall of 17 points on a test with a total range of 1200 points doesn’t seem like a terrifying outcome.” In addition, many other factors influence SAT scores; chief among them is socioeconomic status. It is inappropriate to base a predicted score on a single variable (i.e., percentage taking the exam) without also considering other potential independent variables.

There is much more that could be gleaned from these three reports, but the preceding discussion should give the reader a basic understanding of the debate which we now join. This report is, in part, a follow-up to Heartland Center’s earlier study (*Calumet Region Schools*, summer of 1995). It begins with a comparison of

school districts included in the previous study, examining how much progress has been made in the nearly six years that have elapsed. We also expand on the previous study. Part of this expansion is the inclusion of LaPorte County school corporations, increasing the sample from 23 to 29. Additional independent variables (those which may impact the Index of Excellence) are included, with discussions of their influence.

As with the previous study, this report focuses on an Index of Excellence. This index is a composite measure of performance, and includes the following: attendance rates, graduation rates, average ISTEP+ scores, average SAT scores, and average Cognitive Skills Index (CSI) scores. These rates and scores are standardized by taking each school corporation’s score on a variable and reporting it as a percentage of the highest score among the 29 corporations. Thus, the corporation that has the highest attendance rate has a score of 100 on that variable, with the other corporations having scores as a percentage of that highest rate. All the other variables are treated in a similar fashion. Index of Excellence scores are attained by adding the five standardized scores for each corporation and dividing by five. This yields a

Figure 1. SAT scores by % of students taking SAT in the state.

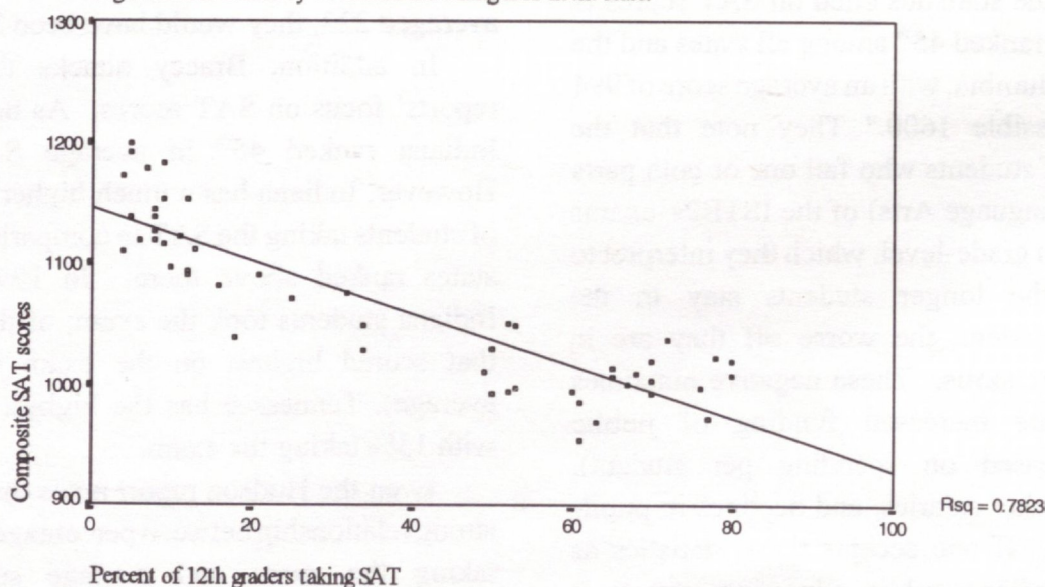
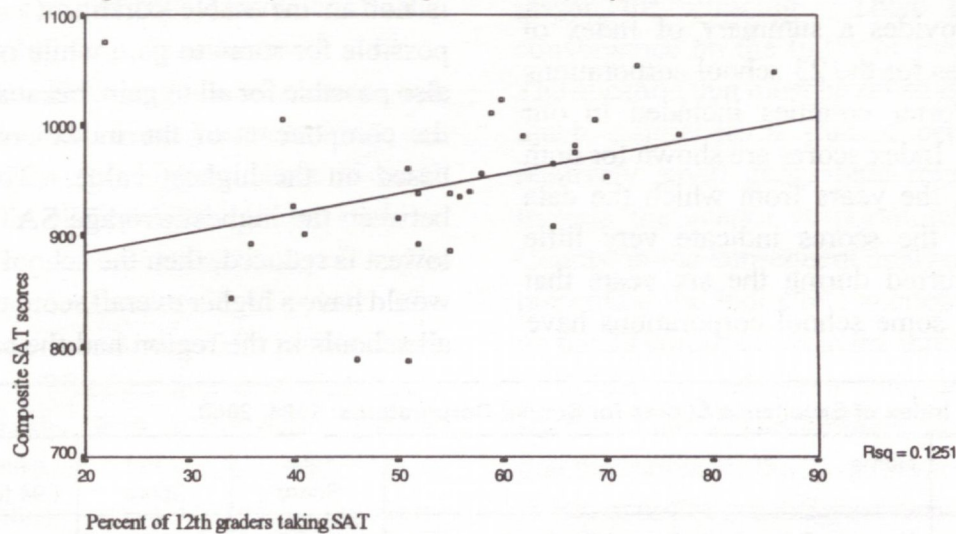


Figure 2. SAT scores by % students taking SAT in the school corporation.



value that is the average of the five standardized scores.

We recognize that there is a danger of falling into the same difficulties which sparked the debate discussed earlier. It is not our intent to create another means of ranking school corporations, thereby providing a source of pride for some and dismay for others. Rather, we created this Index of Excellence in order to examine what factors lead to differences in average student performance.

One might argue that by using SAT scores, we will experience the same issue regarding the percentage taking the exam as was noted above (this is not a problem for ISTEP+ and CSI scores since all students presumably take these tests.) An examination of the relationship between these two variables reveals a different relationship at the local level than exists nationally. Figure 1 shows the relationship nationally, based on SAT scores for the 50 states and District of Columbia (the same scores used in the Hudson Institute report). It clearly illustrates a significant downward trend in SAT scores as the percentage of students taking the exam increases.¹

In contrast, Figure 2 shows the relationship between the two variables for the 29 school

corporations in Northwest Indiana. The relationship is not nearly as strong (as evidenced by the Rsq values), and is opposite to that of national data. At the local level the trend is for school corporations with higher percentages of students taking the SAT to have *higher* average scores. While not a strong trend, it does make our inclusion of SAT scores in the Index of Excellence less problematic.

¹ Readers of both this report and the Hudson report will note a difference in the line drawn in Figure 1 and that of Chart 8 in the Hudson study. This is because we are only attempting to show a trend, whereas the Hudson Institute was attempting to use the percentage of students taking the exam as a predictor of average SAT scores.

Six years later—any progress?

Table 1 provides a summary of Index of Excellence scores for the 23 school corporations of Lake and Porter counties included in our previous report. Index scores are shown for both 1994 and 2000, the years from which the data come. Overall the scores indicate very little change has occurred during the six years that elapsed. While some school corporations have

improved their scores, others have declined. This is not an inevitable condition. Although it is possible for some to gain while others lose, it is also possible for all to gain, because the scores on the components of the index are standardized, based on the highest value. Thus, if the gap between the highest average SAT score and the lowest is reduced, then the school at the low end would have a higher overall score on the index. If all schools in the region had the same values for

Table 1. Index of Excellence Scores for School Corporations: 1994, 2000.

Corp Number	Name	1994 Score	2000 Score	Change ('94 to '00)
4580	Hanover Community School Corporation	93.58	92.33	-1.25
4590	River Forest Community School Corporation	85.92	85.90	-0.02
4600	Merrillville Community School	93.31	93.27	-0.04
4615	Lake Central School Corporation	95.37	96.55	1.18
4645	Tri-Creek School Corporation	93.04	93.79	0.75
4650	Lake Ridge Schools	81.23	83.42	2.19
4660	Crown Point Community School Corporation	95.79	95.96	0.17
4670	School City of East Chicago	78.61	78.92	0.31
4680	Lake Station Community Schools	88.66	87.98	-0.68
4690	Gary Community School Corporation	83.70	82.88	-0.82
4700	Griffith Public Schools	93.48	94.17	0.69
4710	School City of Hammond	84.64	85.59	0.95
4720	School Town of Highland	95.69	94.73	-0.96
4730	School City of Hobart	90.61	92.45	1.84
4740	School Town of Munster	99.64	99.04	-0.60
4760	Whiting School City	90.19	90.50	0.31
6460	M S D Boone Township	94.18	94.04	-0.14
6470	Duneland School Corporation	94.11	96.12	2.01
6510	East Porter County School Corporation	96.46	96.77	0.29
6520	Porter Township School Corporation	93.49	94.14	0.65
6530	Union Township School Corporation	96.74	96.27	-0.47
6550	Portage Township Schools	89.56	90.57	1.01
6560	Valparaiso Community Schools	99.60	98.02	-1.58

all five of the components of the index, they would all have a score of 100. This would be the ideal, though highly unlikely, situation.

The gap between the highest index score and the lowest has declined in six years. In 1994, the difference between the highest score (School Town of Munster: 99.64) and the lowest (School City of East Chicago: 78.61) was 21.03 points. By 2000 this gap had declined to 20.12 points. The highest and lowest scores were 0.91 points closer after six years. Whether this is a significant change is debatable. Part of the reason for the change is that the high score declined from 99.64 to 99.04, which is not a desirable outcome. Ideally, those corporations scoring below the highest score would increase their score, closing the gap. This would mean that all the corporations would be moving toward the highest standard for the region.

The change indicated does not provide much reason for rejoicing. There has been little convergence on the Index of Excellence scores. The question that must be asked is why there is so much difference in student performance in a relatively small geographic region. Since we include the school corporations from LaPorte County in the subsequent analyses, we begin by presenting the Index of Excellence scores based on the 29 corporations in the three-county region.

Table 2 provides a summary of the index scores for the 29 corporations. It should be noted that the scores for the 23 corporations of Lake and Porter counties are different here than in Table 1. This is because the six additional corporations may have higher scores on some of the five components of the index. This is the case for SAT scores. In the two-county analysis, the School Town of Munster had the highest average

Table 2 Index of Excellence Scores for School Corporations in Northwest Indiana: 2000

Corp Number	Corporation Name	Score	Corp Number	Corporation Name	Score
4580	Hanover Community School Corp.	91.99	4760	Whiting School City	90.17
4590	River Forest Community School Corp.	85.57	4790	Dewey Township Schools	93.75
4600	Merrillville Community School	92.91	4805	New Prairie United School Corp	93.44
4615	Lake Central School Corporation	96.18	4860	M S D of New Durham Township	92.20
4645	Tri-Creek School Corporation	93.42	4925	Michigan City Area Schools	87.03
4650	Lake Ridge Schools	83.11	4940	South Central Community School Corp	92.00
4660	Crown Point Community School Corp.	95.59	4945	LaPorte Community School Corp	95.38
4670	School City of East Chicago	78.62	6460	M S D Boone Township	93.67
4680	Lake Station Community Schools	87.65	6470	Duneland School Corporation	95.74
4690	Gary Community School Corporation	82.59	6510	East Porter County School Corp.	96.39
4700	Griffith Public Schools	93.82	6520	Porter Township School Corp.	93.78
4710	School City of Hammond	85.26	6530	Union Township School Corp.	95.91
4720	School Town of Highland	94.37	6550	Portage Township Schools	90.21
4730	School City of Hobart	92.10	6560	Valparaiso Community Schools	97.63
4740	School Town of Munster	98.65			

School corporation factors

This section examines those potential factors influencing the difference in index scores that are specific to the school corporations. These include: per student expense, corporate enrollment, average teacher age, and average teacher salary. Rather than spending time hypothesizing possible relationships, we present charts showing the distribution of index scores by each of the factors. We then present a possible explanation for those relationships that seem to explain some of the differences in scores among corporations.

Before proceeding, it may be helpful to explain a statistical term that is associated with each chart. It appears in the bottom left side of each chart, and is called "Rsq" (also known as R-square). In each chart there is a regression line, which basically shows any trends in the data, that is, any increases or decreases that occur in index scores as the value of the specific factor changes. In Figures 1 and 2, the values for Rsq are indicated. The value of Rsq is always between zero and one. The closer Rsq gets to one, the stronger the relationship. Conversely, the closer it gets to zero, the weaker the relationship. The value of Rsq represents the proportion of the difference in the dependent variable (in Figure 1,

the dependent variable is SAT scores) that is explained by changes in the independent variable (percent of 12th graders taking the SAT in Figure 1). Thus, for Figure 1 we can say that about 78% of the difference in SAT scores among states is due to differences in the percentage taking the exams. This assumes that all other factors remain constant, which is rarely the case. However, the regression line and its' associated Rsq value do help us to identify trends that deserve further examination.

Figure 3 shows the relationship between index scores and the amount spent per student in each of the 29 corporations. The regression line is close to being horizontal, an indication that the relationship is not strong. The value of Rsq is .0606, which is very close to zero. There appears to be little (if any) difference in index scores explained by per student expense. This suggests that index score differences are not necessarily going to be reduced by increased spending. This is not to say that increased spending won't help; only that it is not the most important factor.

In Figure 4 index scores are plotted against total corporate enrollment. Here the regression line shows a downward trend, suggesting that as enrollment increases, index scores are likely to

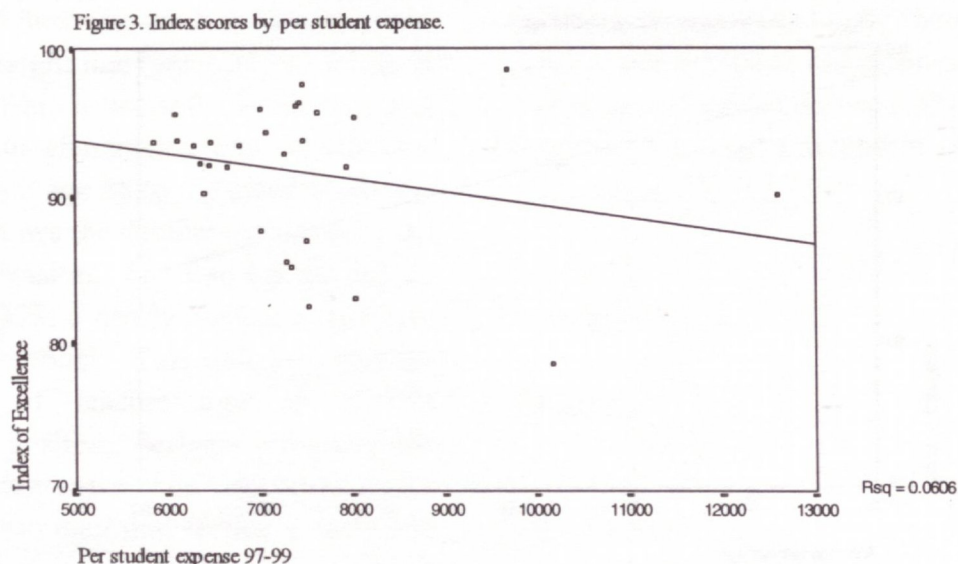
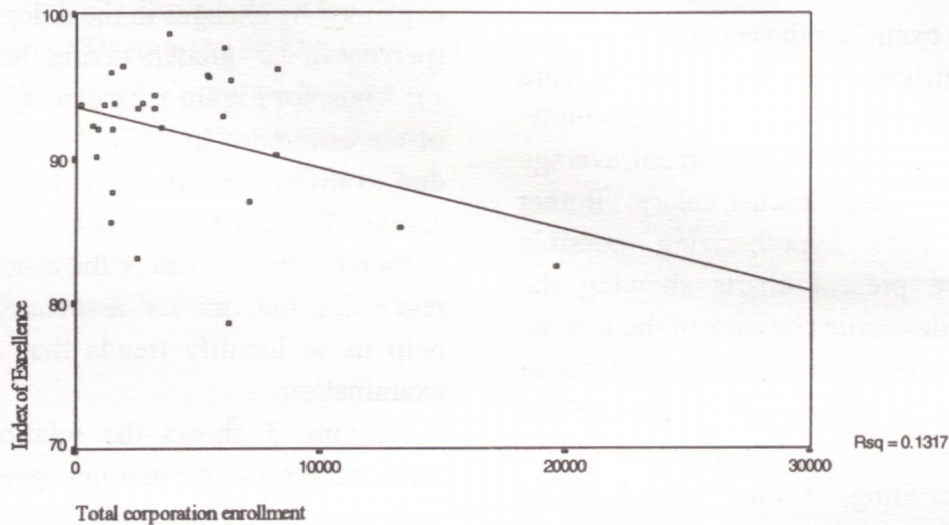


Figure 4. Index scores by corporation enrollment.



decrease. The Rsq associated with the regression line is .1317, which still indicates a somewhat weak relationship. One might surmise that larger school corporations may be more likely to have students “slip through the cracks”, since it would become increasingly difficult to give individual attention to each student as their numbers increase. Smaller corporations allow for more individual help to be given. However, given the relative weakness of the relationship, it would be inappropriate to suggest that one way to increase index scores is by creating smaller corporations,

essentially breaking up the larger corporations into two or more smaller ones. Given the strength of some of the other factors which follow, this relationship may not have much to offer in closing the gap.

Figure 5 shows a plot of index scores by average teacher age for the 29 school corporations. The regression line indicates an overall downward trend. Index scores decline as average teacher age increases. With an Rsq of .2293 this is a moderately strong relationship. But why would increased teacher age lead to poorer

Figure 5. Index scores by average teacher age.

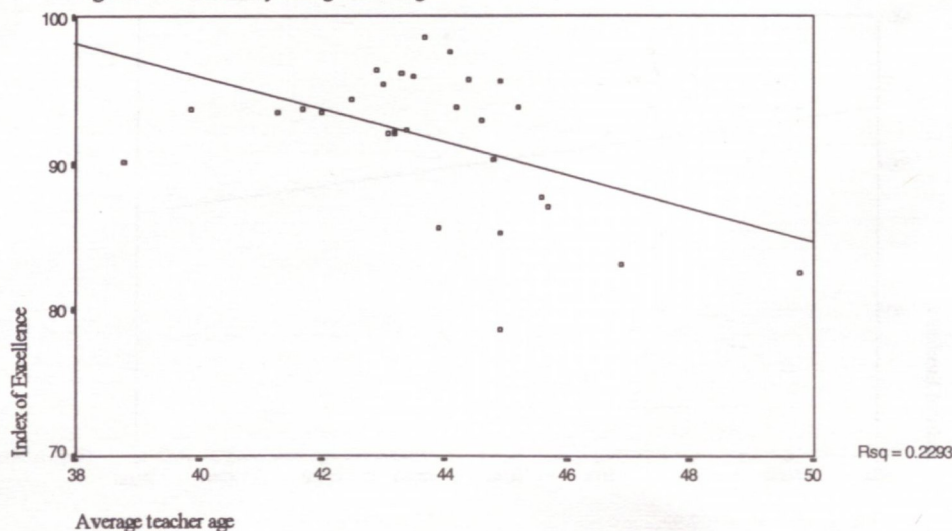
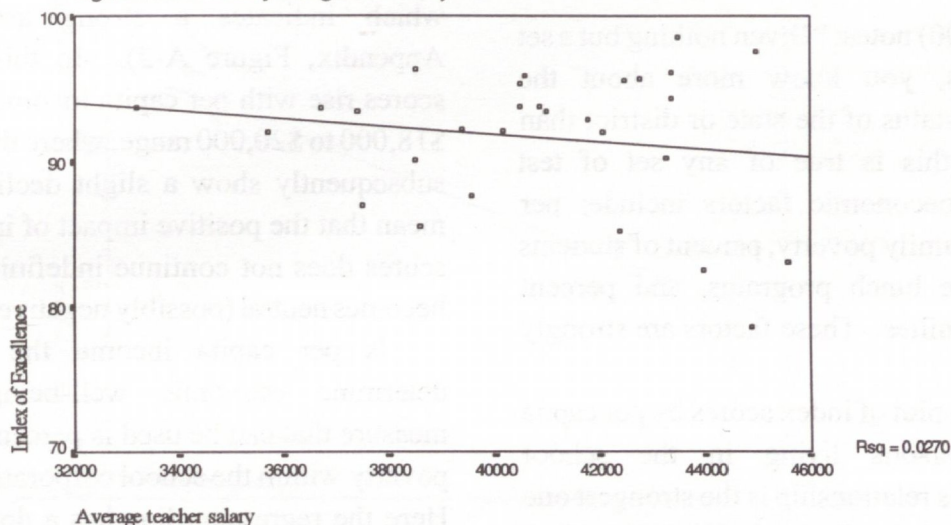


Figure 6. Index scores by average teacher salary.



student performance? One might think that older teachers, because they have greater teaching experience, would be better at their jobs than younger teachers who are still “learning the ropes”. Yet this plot suggests that the reverse may be the case. Is this an indication of teacher “burnout”? Perhaps older teachers’ experiences leave them disillusioned by teaching, and thereby less effective in their role.

But does this mean that experience has no positive impact on teaching ability, and through that a positive impact on student performance? Further examination of Figure 5 reveals that the data do not necessarily fit well with a straight regression line. When a curved line was generated instead of the straight line (see Appendix, Figure A-1), the relationship between the two variables is more complex in character. The curved line actually rises from age 38 to a plateau at age 42, and thereafter shows the decline indicated by the straight line regression. The Rsq for the curved line model is .3373, a nearly 50% increase over the straight line model. This indicates that the initial impact of teacher age on student performance is positive, perhaps reflecting the influence of teacher experience. However, by the time teachers are in their mid-forties, a decline in

performance occurs which may be a result of “job burnout”.

In Figure 6 we see the plot of index scores by average teacher salary. It is readily apparent that this factor has a negligible impact, with the regression line nearly horizontal. The Rsq of .0270 affirms that there is no relationship between these variables. This is an interesting finding, since one would assume that teacher age/experience would be positively related to teacher salary. If this were the case, the relationship should be similar to the previous one. In fact, analysis of the impact of teacher age on teacher salary indicates a positive relationship (salary increases with age), though the Rsq of .3023 is not as high as might have been expected. The impact of teacher age on student performance is probably unrelated to teacher salary.



Socioeconomic factors

Bracey (2000) notes: "Given nothing but a set of SAT scores, you know more about the socioeconomic status of the state or district than anything else (this is true of any set of test scores)." Socioeconomic factors include: per capita income, family poverty, percent of students eligible for free lunch programs, and percent single parent families. These factors are strongly interrelated.

Figure 7 is a plot of index scores by per capita income for persons living in the school corporation. This relationship is the strongest one to this point, with an Rsq of .5937 providing evidence that there is a real impact being measured. The regression line shows a definite upward slope, indicating that those corporations with high per capita income score higher on the index, and those low in income score lower on the index. Given that three of the five components of the index are test scores (CSI, ISTEP+, SAT), and in light of Bracey's comment, this is not a surprising outcome.

One other interesting aspect of this relationship is that, like the one between teachers' age and index scores, a curved line fits the data better than the straight one. When a curved line

model is used, the value of Rsq jumped to .8036, which indicates a strong association (see Appendix, Figure A-2). In this model index scores rise with per capita income only until the \$18,000 to \$20,000 range, where they plateau, and subsequently show a slight decline. This may mean that the positive impact of income on scale scores does not continue indefinitely, but rather becomes neutral (possibly negative) at some point.

Is per capita income the best way to determine economic well-being? Another measure that can be used is percent of families in poverty within the school corporations (Figure 8). Here the regression line has a downward slope, indicating that school corporations with larger numbers of families in poverty have lower scores on the index, and vice versa. The Rsq associated with the regression line is .7799, higher than that for the straight line model for per capita income (though slightly lower than the curved line model). Creating a curved line model for this relationship increases Rsq to .8070, with the curve beginning to plateau at 30% of families in poverty. (See Appendix, Figure A-3.) As with per capita income, there may be a point at which the negative impact of family poverty begins to ease.

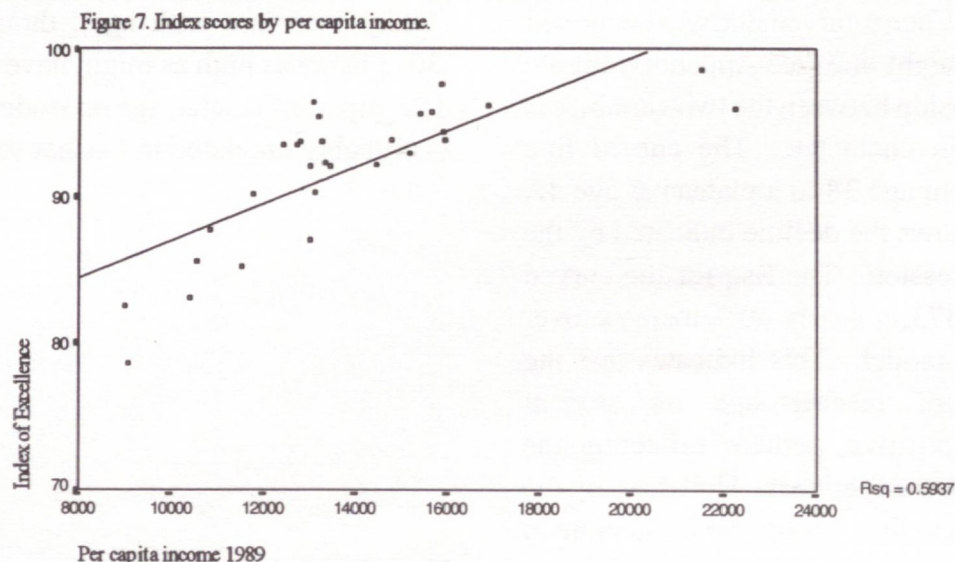
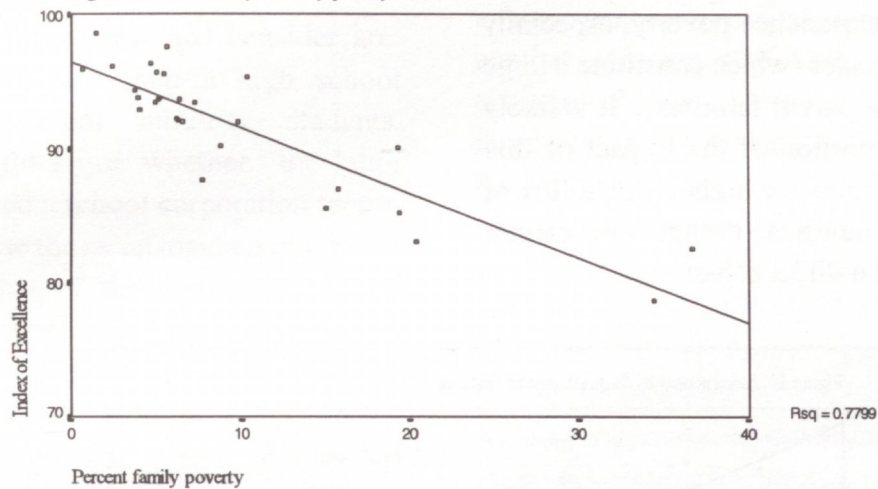




Figure 8. Index scores by % family poverty.



A third measure of economic well-being is the percentage of students who are eligible for free lunch programs (Figure 9). The relationship between this measure and index scores is very strong ($R^2 = .9056$), with a sharp downward slope. This indicates that school corporations with higher percentages of students eligible for free lunch programs have lower index scores. The strength of this association is astounding, and unlike the previous two is not helped by using a curved line model. It is rare in social science research to find such a strong relationship.

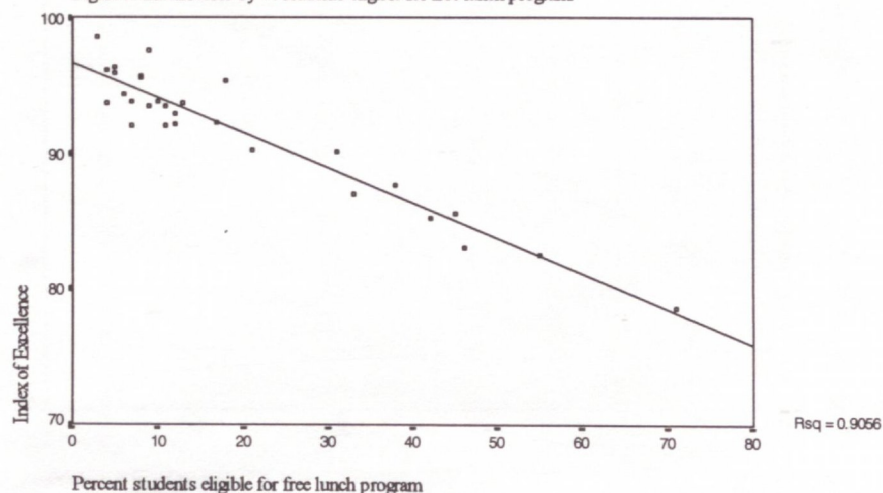
If one were forced to choose among the three measures of economic well-being, this last one is clearly the best. Eligibility for the free lunch

program directly measures whether the student lives in poverty, while the other two are more indirect measures.

This section concludes by considering one other family status variable: percent of single parent families. In Figure 10 we see that the relationship between this factor and index scores is relatively strong ($R^2 = .6714$), with the regression line having a sharp downward slope. School corporations with higher percentages of single parent families have lower index scores and vice versa.

One possible explanation is that because of time constraints, a single parent may not be able to provide as much support with schooling to

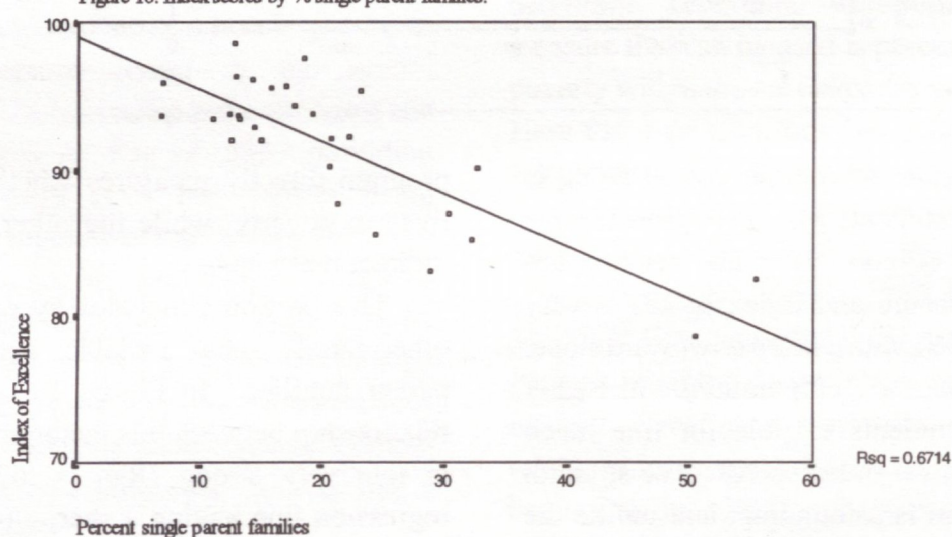
Figure 9. Index scores by % students eligible for free lunch program.





his/her children. Moreover, single parent families are more likely to experience poverty, especially those headed by females (which constitute a large proportion of single parent families). It is likely that a substantial portion of the impact of this variable is attributable to the higher probability of poverty for these families, though one cannot completely rule out a direct effect.

Figure 10. Index scores by % single parent families.





Community factors

The last two factors we will consider are: percent adults with less than a high school education, and percent minority students. Although one might argue whether the latter should be considered a school corporation factor, we present it because the racial makeup of schools tends to mirror that of the community, since children within a school corporations' boundaries almost always go to schools in that corporation. We also recognize the potential pitfall that comes from considering race as a factor. We do not imply in any way that minorities are unable to achieve, but we must address what influences lack of achievement. To do so we need to document what differences exist that could be attributable to race.

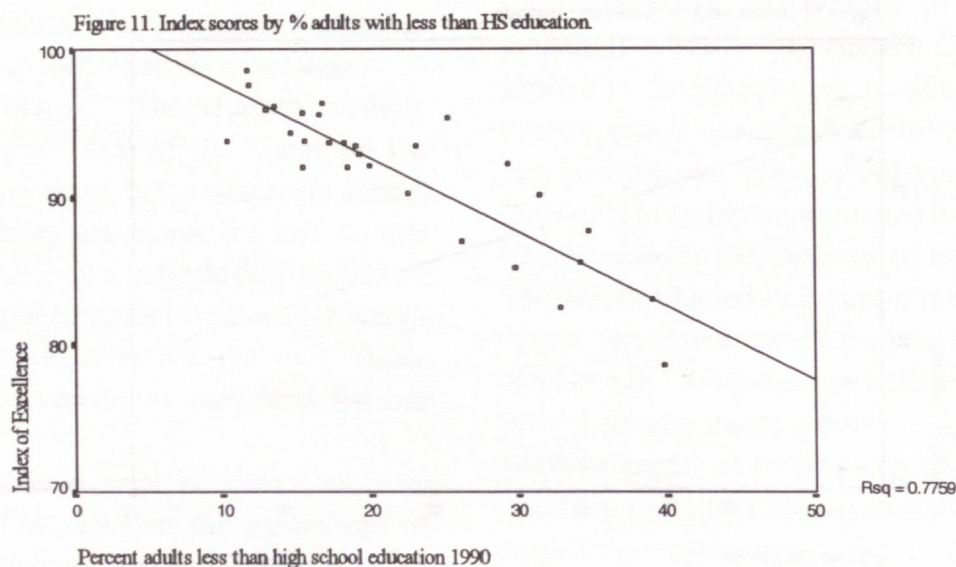
In Figure 11 we have plotted index scores against the percent of adults within the school corporation who have less than a high school education. The regression line shows a strong downward trend ($Rsq = .7759$) which indicates that corporations with higher percentages of adults who have not completed high school tend to have lower index scores.

As with the single parent families factor, there are a couple possible explanations for this effect.

Since income is heavily influenced by educational achievement, one could reason that this is simply another variable that acts indirectly through economic factors. However, the possibility of a more direct effect should not be dismissed. Bracey (2000) notes the influence that parental educational achievement has on SAT scores. It has been argued that part of children's lack of achievement is tied to a lack of desire to achieve.

This may be in part due to a feeling that getting an education will not help job prospects and future income, especially if one perceives that racial discrimination limits a person's options. It may also be related to a lack of role models who can provide students with an example of how education led to their success. Often, those who are successful leave their communities for "greener pastures". When this happens, communities are left with few success stories to inspire their children.

Finally, we consider the potential impact of the percent of minority students in a corporation to that corporation's index score (Figure 12). Here there is a strong ($Rsq = .6554$) downward slope, indicating that school corporations with higher proportions of minority students have lower index scores.





Some contend that this supports the position that certain minority groups have lower achievement because they have lower intellectual capability. This argument is exemplified by Herrnstein and Murray's book *The Bell Curve*, which purported that persons of African descent have a lower capacity to learn, and attempted to provide "scientific evidence" for this opinion. We categorically reject this type of explanation.

It is likely that there are a variety of reasons for this effect. One lies in the higher poverty rate of certain minority groups, particularly African Americans and Hispanics. Poverty is strongly associated with lower achievement. School corporations with higher percentages of minority students may also have a higher proportion of students living in poverty.

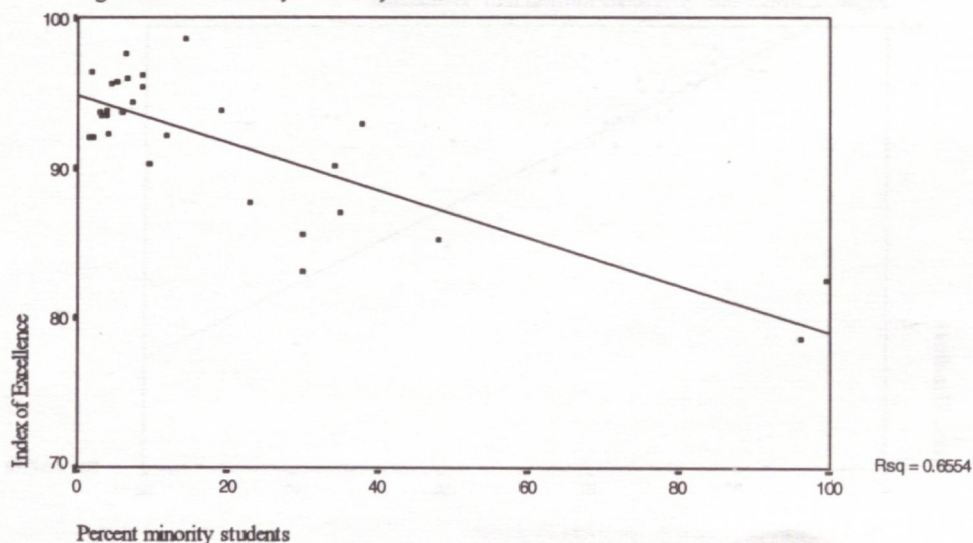
A second possibility relates to the previous discussion of adult role models. This has been a particularly powerful issue in African-American communities, though not exclusive to such communities. Leaders in these communities, especially those in the school system, have begged successful minorities to come speak in their schools and provide students with a vision of what is attainable with a good education. This may be necessary to avoid the situation described by a

young (about 12 years old) black male in an ABC special "Black in White America" aired in the early 1990s. When he was asked by the correspondent to identify examples of successful men in his neighborhood (the Robert Taylor project in Chicago), the only examples he could cite were drug dealers.

Certain minority groups contain a higher proportion of single parent families. To the extent that this influences prior factors such as per capita income and poverty, it provides another source for an indirect effect. A direct effect may also exist, as described in the previous section (see discussion of Figure 10).

It seems clear from a review of figures 3 through 12 that there are a number of factors which influence index scores. One single factor stands out: the percentage of students in the free lunch program. It is also possible that two or more of these factors (as well as other factors not included in this study) may act together, some increasing scores while others decrease them. It is difficult to determine whether this is the case, since the number of Calumet Region school corporations is relatively small, making results of a more in-depth analysis suspect.

Figure 12. Index scores by % minority students.





Discussion

The six years that have elapsed since Heartland Center's last report on public education have seen little change in how this issue is perceived. While the various participants in the discussion have many areas of dissension, they all agree on the importance of education in improving students' ability to contribute to society in a meaningful way. Is education succeeding in this endeavor? If not, who is to blame?

The results in the previous section indicate that there is a great deal of inequality in terms of student achievement across the 29 school corporations of Northwest Indiana. Unfortunately, the data also indicate that there has been little change in the degree of inequality in the past six years. The changes in index scores reported in Table 1 are minor, and in some cases decline. There has been little convergence between the highest score and the lowest score.

The analyses from this study confirm those of Heartland Center's prior report. Factors such as economic status and teacher age have significant impact on index scores. Percentage single parent families and percentage of adults with less than a high school education are also found to influence index scores. One is left with the distinct impression that very little has changed in the six years between reports, which is to say that things are as bad today as they were six years ago.

Who is to blame? The Hudson Institute report places a great deal of the blame on the public education system. Is the education system alone in shouldering the blame for low student achievement? Our results indicate that the answer is no. While the public school system must accept some of the blame, it is not the only factor influencing achievement, as measured by our index.

Part of the blame must be shared by local communities. The fact that the percentage of adults with less than a high school education has

a strong impact indicates that part of the problem lies in providing positive role models in the community for students to emulate. When education is perceived as being unimportant in a community, students in that community will have little desire to achieve. Communities, as well as parents and other relatives, need to become encouragers of educational achievement rather than discouragers.

Another share of the blame belongs to our society. The influence of the percentage of minority students on index scores, while indicative of a problem at the community level, also provides evidence of the lingering impact of racism and discrimination. It is highly probable that the lack of motivation exhibited in minority communities is in part due to a sense of fatalism about life chances. If members of a minority group see little opportunity to use education in a meaningful way in their jobs, then there is little motivation to achieve in the education system. This lack of opportunity is partially a result of jobs lost in the community, as well as perceived (and real) acts of discrimination. One unfortunate result is that those who do achieve are often forced to move out of their communities to find career opportunities, effectively helping to perpetuate the problem.

What needs to be done to improve this situation? Clearly the required changes are not limited to the school system. If only the school system makes changes, then little improvement can be expected. The school system, however, does need to make changes. One thing that should be addressed is the problem of teacher burnout. The results charted in Figure 5 (and Figure A-1) reveal that index scores decline with increased teacher age. While lack of teacher experience is not desirable, these results suggest that the positive impact of teacher experience dissipates, and then turns to a negative impact. Creating a positive atmosphere in which teachers feel their



efforts are worthwhile and desired is one step schools can take.

An example of this can be found in the April 24, 2001 story in *The Times* about Wirt High School in Gary. The school was placed on academic probation by the Indiana State Board of Education in February 2000. In one year they were able to improve enough to be taken off probation status. One of the ways this was accomplished was by holding a staff retreat prior to the school year, which "contributed to a greater sense of unity." While no details are provided about the retreat, the article notes that it helped create an improved school climate.

In addition to the staff retreat, administrators and staff planned a ten-day "enabling camp" to prepare incoming 10th graders for the ISTEP tests. They began adhering to a citywide curriculum policy, bringing uniformity to the teaching process. They incorporated new teaching techniques, moving away from lecturing to more student involvement, with increased use of technology. Finally, they instituted a tougher attendance policy, which improved the attendance rate. This is not to suggest that all schools need to follow this model; not all schools have the same problems. Rather, this example is useful in illustrating that changes can be made within the education system to improve student outcomes.

At the family/community level changes need to address the lack of encouragement provided to students, as well as the lack of role models who exhibit the positive outcomes of getting a good education. This may involve organizing parents, teachers, business and community leaders in efforts to promote education. Such organizations could encourage student achievement through the use of awards for attendance, academic scholarship, civic awareness, volunteerism, etc. In addition, they could bring in graduates from their community who are successful in their chosen careers. These graduates could serve as positive

reinforcement, showing what is possible when one works hard to gain an education.

At the societal/national level, there needs to be a continued effort to eliminate discrimination, especially in the hiring process. Minority students need to have assurances that the "playing field" is level, and that their efforts will not be fruitless because of job discrimination. In addition, there needs to be a continued and enhanced effort to reward companies for moving into areas that have lost other employers. This would not only provide jobs in the community for graduates, but would keep those graduates in the area, where they can serve as role models for future generations.

It is only through the efforts of all those with a stake in a well-educated populace that the problems described in this report can be solved. The problem is not simply one for school systems to address; it requires a concerted endeavor to advance the cause of education.



Appendix

Figure A-1. Index scores by average teacher age.

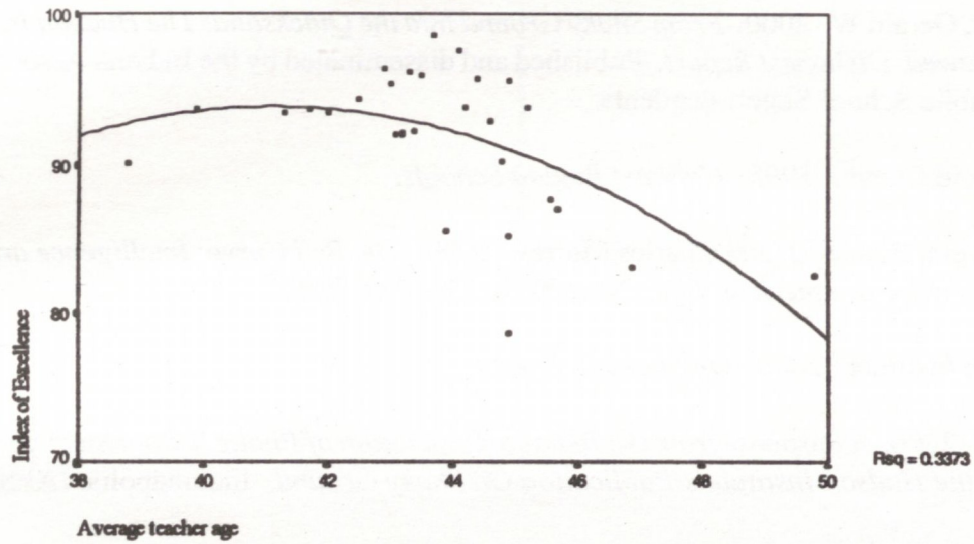


Figure A-2. Index scores by per capita income.

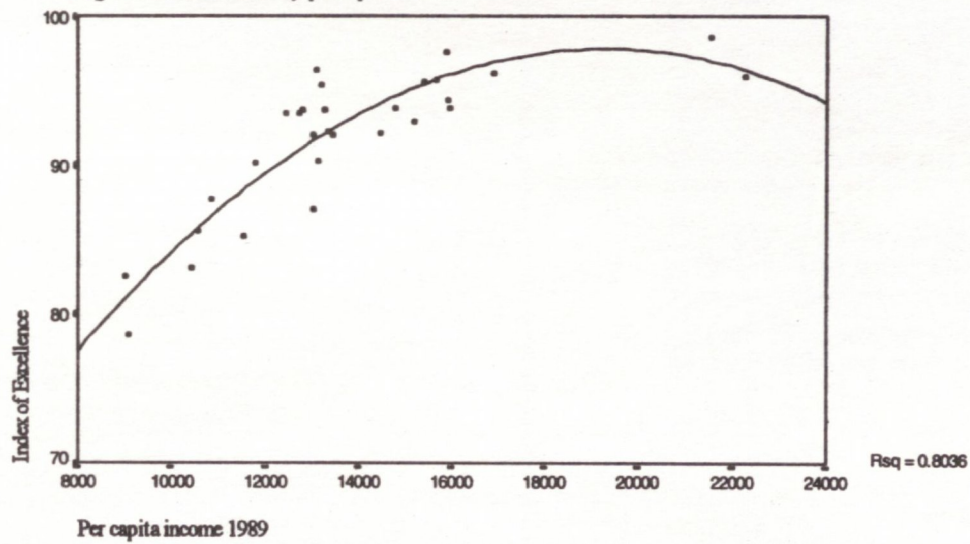
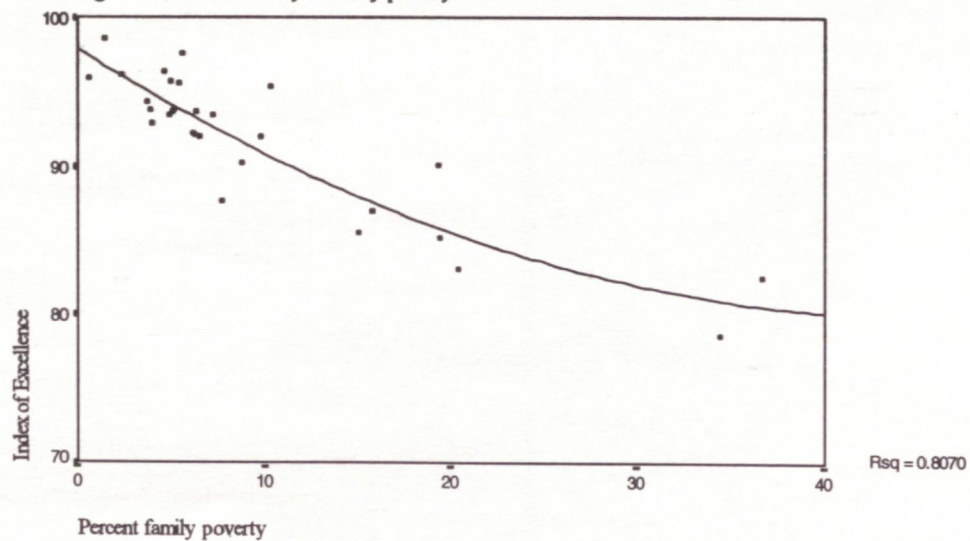


Figure A-3. Index scores by % family poverty.





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André Nauta, Ph.D., was the principal investigator and author of this report. The data and statistics for this analysis were from the ISTEP+ InfoCenter web site, and reflect statistics reported for the 1999-2000 school year. All analysis and interpretation besides the raw data are the author's sole responsibility.

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